

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
8 June 2006 (08.06.2006)

PCT

(10) International Publication Number
WO 2006/059219 A1

(51) International Patent Classification:

F01N 11/00 (2006.01) F01N 9/00 (2006.01)

(21) International Application Number:

PCT/TB2005/003635

(22) International Filing Date:

1 December 2005 (01.12.2005)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

2004-350061 2 December 2004 (02.12.2004) JP

(71) Applicant (for all designated States except US): TOYOTA JIDOSHA KABUSHIKI KAISHA [JP/JP]; 1, Toyota-cho, Toyota-shi, Aichi-ken 471-8571 (JP).

(72) Inventor; and

(75) Inventor/Applicant (for US only): WAKAMATSU, Jin [JP/JP]; c/o Toyota Jidosha Kabushiki Kaisha, 1, Toyota-cho, Toyota-shi, Aichi-ken 471-8571 (JP).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, KE, KG, KM, KN, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NL, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

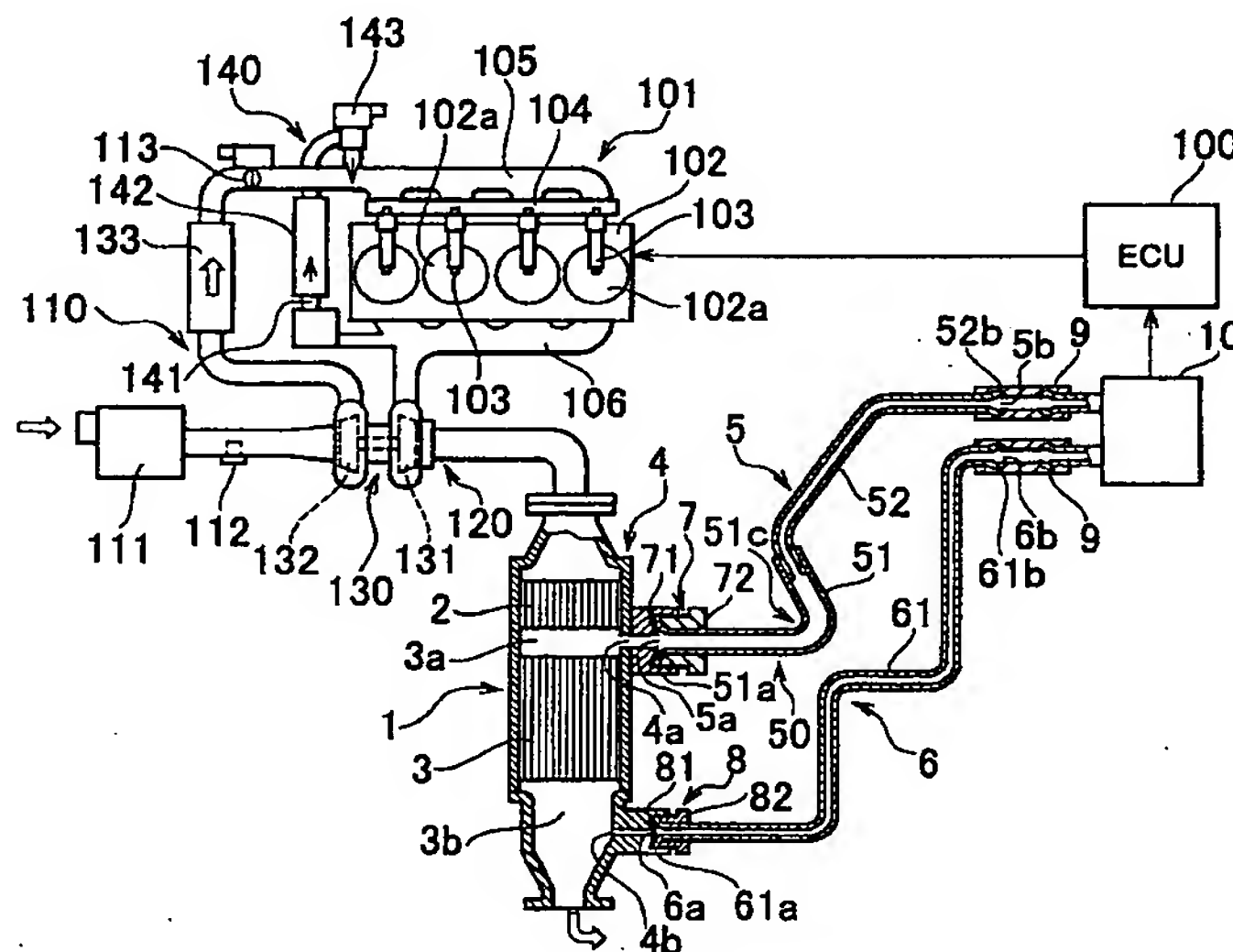
(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

— with international search report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: EXHAUST GAS CONTROL APPARATUS



(57) Abstract: An exhaust gas control apparatus (1) that includes a pressure difference sensor (10) that detects the difference in pressure between the upstream side (3a) and the downstream side (3b) of a particulate filter (DPNR catalyst) (3), which captures particulate matter that is present in exhaust gas. In the exhaust gas control apparatus, the pipes that introduce the pressure to the pressure difference sensor (10) include an upstream pipe (5) that introduces the pressure on the upstream side (3a) of the particulate filter (3) to the pressure difference sensor (10). The upstream pipe (5) includes an expanded pipe portion (50), which has an inner diameter greater than that of the portion of the upstream pipe (5) near the pressure difference sensor (10), near the particulate filter (3). With this configuration, the deposition of particulate matter, soot, soluble organic fractions, and the like in the upstream pipe (5) is suppressed, which minimizes clogging of the upstream pipe (5).